Council Proposes a Range of Harvest Levels and Management Measures for the 2003 West Coast Groundfish Fishery

The Council adopted a range of proposed harvest levels (Table 2-1) and management measures (Tables 2-2 through 2-5) for the 2003 West Coast groundfish fishery at its June 2002 meeting. These management options will be analyzed in an Environmental Impact Statement (EIS) that will be prepared this summer to understand their relative biological, physical, and socioeconomic effects. This will be the primary decision document for Council use in deciding final 2003 groundfish harvest levels and management measures at its September meeting.

A primary consideration for 2003 groundfish management is the need to rebuild depleted populations of bocaccio, canary rockfish, and yelloweye rockfish. New assessments and rebuilding analyses for these shelf rockfish species indicate very low levels of fishing related mortality can be sustained in 2003 to rebuild these species. A restructuring of all fisheries operating on the continental shelf of the West Coast is being considered and analyzed in the EIS to meet this rebuilding challenge. Such restructuring includes depth-based fishing restrictions and gear modifications to avoid an incidental bycatch of these species. The Council is also considering requiring satellite tracking (vessel monitoring system or VMS) of limited entry vessels under those options having a fishing depth restriction. Anticipated fishery effort shifts to nearshore and deeper water areas necessitate precautionary considerations for managing groundfish species that reside off the continental shelf as well.

Fisheries, including those that target non-groundfish species, not listed in the following tables will be analyzed as well for their anticipated bycatch of overfished groundfish species. Comprehensive bycatch accounting is needed given the low available harvest of bocaccio, canary rockfish, and yelloweye rockfish. Another concept proposed since the June Council meeting is to analyze depth-based restrictions by estimating anticipated bycatch in fisheries across broad swaths: less than 20 fm, 20-40 fm, 40-100 fm, 100-250 fm, ≥250 fm. The logic behind this suggestion is that the Council could then pick a fathom curve from within those swaths.

All of these considerations will be analyzed in the EIS prepared this summer. An initial draft of the EIS will be available in late August in the September Council meeting briefing book. It will also be posted on the Council website at www.pcouncil.org.

TABLE 2-1. Acceptable biological catch (ABC) and total catch optimum yield (OY) alternatives (metric tons) for 2003 for the Washington, Oregon, and California region under the Council-proposed alternatives. (Overfished stocks in CAPS).

Oregon, and California region u	nder the C	Jouncil-prop	osed altern	atives. (Overfis	hed stocks	in CAPS).		
Stock	2002 A	ABCs/OYs	2003 Lo	rnative 1 w ABCs/OYs	2003 Med	ernative 2 dium ABCs/OYs	2003 I	ternative 3 High ABCs/OYs
	ABC	OY	ABC	OY	ABC	OY	ABC	OY
LINGCOD	745	577	841	555 (80%)	841	651 (60%)	841	725 (50%)
Pacific Cod	3,200	3,200			3,200	3,200		
PACIFIC WHITING (Coastwide)	166,000	129,600	188,000	129,600	188,000	148,200 (F45%)	188,000	173,600 (F40%)
Sablefish (North of Conception)	4,644	4,367	8,113	4,381	8,113	7,359	8,113	8,091
Conception INPFC area	333	229	441	233	441	323	441	346
PACIFIC OCEAN PERCH	640	350	689	311 (80%)	689	377 (70%)	689	496 (50%)
Shortbelly Rockfish	13,900	13,900			13,900	13,900		
WIDOW ROCKFISH	3,727	856	3,871	656 (80%)	3,871	832 (60%)	3,871	916 (50%)
CANARY ROCKFISH (50%-50%)	228	93	256	30 (80%)	256	41 (60%)	256	45 (50%)
(80% Comm20% Rec.)			309	38 (80%)	309	52 (60%)	309	57 (50%)
Chilipepper Rockfish	2,700	2,000			2,700	2,000		
BOCACCIO	122	100	198	0 (54%)	198	5.8 (50%)	198	SSC to model
Splitnose Rockfish	615	461			615	461		
Yellowtail Rockfish	3,146	3,146			3,146	3,146		
Shortspine Thornyhead	1,004	955			1,004	955		
Longspine Thornyhead	2,461	2,461			2,461	2,461		
S. of Pt. Conception	390	195			390	195		
COWCOD (S. Concep)	5	2.4			5	2.4		
N. Concep & Monterey	19	2.4			19	2.4		
DARKBLOTCHED	187	168	205	0.5*(T _{MAX} -T _{MIN}) (option for analysis) 100 (option for analysis 130 (option for analysis) 172 (80%)	205	184 (70%)	205	205 (50%)
YELLOWEYE - Coastwide	27	13.5	27	2.1 (70%)	27	3.9 (50%)	27	13.5 (2002)
N of 40°10' latitude	22	11	22	2.033 (70%)	22	3.633 (50%)	22	11 (2002)
Monterey	5	2.5	5	0.067 (70%)	5	0.267 (50%)	5	2.5 (2002)
Minor Rockfish North	4,795	3,115			4,795	3,115		
Minor Rockfish South	3,506	2,015			3,506	2,015		
Remaining Rockfish North	2,755				2,755			
Black	1,115				1,115			
Bocaccio	318				318			
Chilipepper - Eureka	32				32			
Redstripe	576				576			
Sharpchin	307				307			
Silvergrey	38				38			
Splitnose	242				242			
Yellowmouth	99				99			
Remaining Rockfish South	854				854			
Bank	350				350			
Blackgill	343				343			
Sharpchin	45				45			
Yellowtail	116				116			
Other Rockfish North	2,068				2,068			
	2,652				2,652			
South			-	1		7,440		
		7.440			0.510			
Dover Sole	8,510	7,440			8,510 3,100	7,440		
Dover Sole English Sole	8,510 3,100	7,440			3,100	1,440		
Dover Sole English Sole Petrale Sole	8,510 3,100 2,762	7,440			3,100 2,762	1,440		
Dover Sole English Sole	8,510 3,100	7,440			3,100	1,440		

Fishery	Option 1	Option 2	Option 3	
risilery	Most Conservative	Intermediate	Least Conservative	
	Wasł	nington Recreational Options		
Groundfish	Options 2 and 3 with closure outside of a line approximating 25 fm (lat./long. waypoints to be defined). Less than a year round season.	Daily bag limit of 10 groundfish (including rockfish and excluding lingcod), no retention of canary or yelloweye rockfish, open year round. Daily bag limit of 2 lingcod, 24" min. size, open Mar. 16- Oct. 15.	Daily bag limit of 10 groundfish (including rockfish and excluding lingcod), sublimit of 1 canary rockfish and no retention of yelloweye rockfish, open year round. Daily bag limit of 2 lingcod, 24" min. size, open Mar. 16-Oct. 15.	
Pacific Halibut	I Dian I waynointe to he defined) Suharea			
Salmon	Close recreational salmon fishery outside of a line approximating 25 fm in Marine Catch Areas 3 and 4 (lat./long. waypoints to be defined). No downriggers allowed.	No retention of canary rockfish with a salmon onboard. No halibut retention with a salmon onboard. No downriggers allowed.	No retention of canary rockfish with a salmon onboard. No downriggers allowed.	
	Or	egon Recreational Options		
Groundfish	Daily bag limit of 10 groundfish (including lingcod) with sublimit of 2 lingcod (24" min. length). Canary and yelloweye rockfish retention prohibited. Min. length limit of 16" for cabezon. Open 0 to 20 fathoms, during a season less than year round. Oregon landings of nearshore groundfish capped at 2000 or 2002 OY levels for the following species categories: black and blue rockfish combined, other nearshore rockfish combined, cabezon (16" min. length with a suboption of 15" min. length), greenling spp.	Daily bag limit of 10 rockfish with sublimits of 1 canary and 1 yelloweye rockfish. Two lingcod at 24" min. length. Fishery open year round, but restricted to 0-27 fm June-Oct. Min. length limit of 16" for cabezon. Oregon landings of nearshore groundfish capped at 2000 or 2002 OY levels (see Option 1).	Daily bag limit of 10 rockfish with sublimits of 1 canary and 1 yelloweye rockfish. Two lingcod at 24" min. length. Min. length limit of 16" for cabezon. Fishery open year round at all-depths. Inseason closure outside 27 fms if necessary.	
Pacific Halibut	All-depth fishery closed on Stonewall Banks; description area to be identified. Nearshore open to ≤ 20 fm curve. See catch sharing plan for sub-area seasons.	Yelloweye rockfish retention prohibited if Pacific halibut is on board vessel during all-depth fishery. Nearshore fishery open in ≤ to 27 fm curve during June through September. See catch sharing plan.	Yelloweye rockfish retention prohibited if Pacific halibut is on-board vessel during all-depth fishery. See catch sharing plan.	
Salmon	Mooching may be prohibited; other option	ns may be considered	•	

TABLE 2-2. Pi	TABLE 2-2. Proposed management measures for 2003 West Coast recreational groundfish fisheries: options for analysis.				
Fishery	Option 1 Most Conservative	Option 2 Intermediate	Option 3 Least Conservative		
	Cal	ifornia Recreational Options			
Groundfish	No rockfish, lingcod, or ocean whitefish may be taken in waters outside 10 fm; daily bag limit of 5 rockfish including 0 shelf species; no retention of bocaccio, cowcod, canary rockfish, or yelloweye rockfish. Daily bag limit of 5 sculpin. Daily bag limit of 2 lingcod with 24" min. length. Season closed Jan-Apr and Nov-Dec. Partition minor nearshore rockfish into components: shallow group (black and yellow, china, gopher, grass, kelp) 80-160 mt; med group (CA scorpionfish) 50-100 mt; deeper group 402-532 mt. Total would not exceed the current 662 mt. Status quo size limits for all currently limited rockfish, with additional limits for: black and yellow = 10", china = 12", gopher = 10", grass = 12", kelp = 10". Cabezon = 16" min. length. Barbless, circle hooks required. Maintain a 50% commercial: 50% recreational apportionment of overall OY for minor nearshore group.	No rockfish, lingcod, or ocean whitefish may be taken in waters outside of 20 fm; daily bag limit of 7 rockfish including 1 shelf species; no retention of bocaccio, cowcod, canary rockfish, or yelloweye rockfish. Daily bag limit of 7 sculpin. Daily bag limit of 2 lingcod with 24" min. length. Season closed Mar-Apr and Nov-Dec (suboption of opening Nov-Dec). Provide for the shallow group and CA scorpionfish in accordance with Option 1 estimates (80-160 mt, 50-100 mt) and then adjust (increase) the overall OY to account for expected catch of the deeper nearshore group in shallow water (<20 fm; <10 fm): 1) Fishing allowed within 20 fm, increase OY by 20-150 mt, or 2) Fishing allowed within 10 fm, increase OY by 10-100 mt. Cabezon = 16" min. length. Barbless, circle hooks may be required. Maintain a 30% commercial: 70% recreational apportionment of overall OY for minor nearshore group.	No rockfish, lingcod, or ocean whitefish may be taken in waters outside of 20 fm; daily bag limit of 10 rockfish including 2 shelf species; no retention of bocaccio, cowcod, canary rockfish, or yelloweye rockfish. Daily bag limit of 10 sculpin. Daily bag limit of 3 lingcod with 22" min. length. Year round season. Status quo minor nearshore rockfish management, but reduce to historic catch levels: shallow group 80-160 mt, scorpionfish 50-100 mt. Cabezon = 15" min. length. Barbless, circle hooks not required. Maintain a 16% commercial: 84% recreational apportionment of overall OY for minor nearshore group.		

TABLE 2-3. Proposed management measures for 2003 West Coast commercial groundfish fisheries: options for analysis.				
Fishery/Area	Option 1 Most Conservative	Option 2	Option 3	Option 4 Least Conservative
		Limited Entry Trawl		
North of 40°10' N. Lat.	No trawling.	Closure inside 250 fm, except allow a midwater trawl fishery for yellowtail and widow subject to time/area restrictions, allow Pacific whiting midwater trawl with possible depth restrictions; [OR only]: nearshore groundfish landings capped at 2000 or 2002 OY levels for the following species categories: black and blue rockfish combined, other nearshore rockfish combined, cabezon (16" min. length with a suboption of 15" min. length), greenling spp.	Closure inside 150 fm, except allow a midwater trawl fishery for yellowtail and widow subject to time/area restrictions, allow Pacific whiting midwater trawl with possible depth restrictions; Consider seasonal flatfish opportunities inside a line approximating either 50, 75, 100, or 125 fm; [OR only]: nearshore groundfish landings capped at 2000 or 2002 OY levels (see Option 2).	Seasonal closures between 100 and 200 fm; allow a midwater trawl fishery for yellowtail and widow subject to time/area restrictions, allow Pacific whiting midwater trawl with possible depth restrictions; Consider seasonal flatfish opportunities inside a line approximating either 50, 75, 100, or 125 fm; [OR only]: nearshore groundfish landings capped at 2000 or 2002 OY levels (see Option 2); small footrope required shallower than 100 fm.
40°10' N. Lat 36° N. Lat. (38° N. Lat. for slope rockfish)	Permanent closure from 50 to 250 fm; small footrope required shallower than 50 fm.	permanent closure from 60 to 150 fm; small footrope required shallower than 60 fm.		Permanent closure from 65 to 125 fm; small footrope required shallower than 65 fm.
South of 36° N. Lat. (38° N. Lat. for slope rockfish)	Permanent closure from 50 to 150 fm, small footrope required shallower than 50 fm.	permanent closure from 60 to 150 fm; small footrope 65 to 125 fm; required shallower than 60 fm. 65 to 125 fm;		Permanent closure from 65 to 125 fm; small footrope required shallower than 65 fm.

TABLE 2-3. Proposed management measures for 2003 West Coast commercial groundfish fisheries: options for analysis.				
Fishery/Area	Option 1 Most Conservative	Option 2	Option 3	Option 4 Least Conservative
	L	imited Entry Fixed Gear		
North of 40°10' N. Lat.	Close inside a line approximating 150 fm; Sablefish DTL: 800 lbs/week; Slope rockfish: 5,000 lbs/2 mos; Halibut: No fishery inside 150 fm in Area 2A, retention of halibut bycatch allowed in sablefish fishery; Thornyheads: Same as trawl limits.	Close inside a line approximating 100 fm; Sablefish DTL: 300 lbs/day, 800 lbs/week; Slope rockfish: 10,000 lbs/2 mos; Halibut: No fishery inside 125 fm in Area 2A, retention of halibut bycatch allowed in sablefish fishery; Thornyheads: Same as trawl limits.	Close inside a line approximating 100 fm; Sablefish DTL: 300 lbs/day, 800 lbs/week; Slope rockfish: 20,000 lbs/2 mos; Halibut: No fishery inside 125 fm in Area 2A, retention of halibut bycatch allowed in sablefish fishery; Thornyheads: Same as trawl limits.	Sablefish DTL: 300 lbs/day, 800 lbs/week; Slope rockfish: 30,000 lbs/2 mos; Halibut: No fishery inside 100 fm in Area 2A, retention of halibut bycatch allowed in sablefish fishery; Thornyheads: Same as trawl limits.
40°10' N. Lat 36° N. Lat. (38° N. Lat. for slope rockfish)	Sablefish DTL: 300 lbs/day, 800 lb/week; Slope rockfish: 5,000 lbs/2 mos.; Thornyheads: Same as trawl limits.	Sablefish DTL: 300 lbs/day, 800 lb/week; Slope rockfish: 15,000 lbs/2 mos.; Thornyheads: Same as trawl limits.	Sablefish DTL: 300 lbs/day, 800 lb/week; Slope rockfish: 20,000 lbs/2 mos.; Thornyheads: Same as trawl limits	Sablefish DTL: 300 lbs/day, 800 lbs/week; Slope rockfish: 25,000 lbs/2 mos.; Thornyheads: Same as trawl limits.
South of 36° N. Lat. (38° N. Lat. for slope rockfish)	Sablefish DTL: 300 lbs/day, 900 lbs/week; Slope rockfish: 15,000 lbs/2 mos.; Thornyheads: Same as trawl limits.	Sablefish DTL: 300 lbs/day Slope rockfish: 25,000 lbs/ Thornyheads: Same as tra	/2 mos.;	Sablefish DTL: 350 lbs/day, 1,050 lbs/week; Slope rockfish: 30,000 lbs/2 mos.; Thornyheads: Same as trawl limits.
		Open Access		
North of 40°10' N. Lat.	Hook and line and pot fishing for nearshore rockfish restricted to same depths as recreational fishery; Closed between 150 fm and deepest depth allowed for recreational fishery; Cap nearshore groundfish limits at 2000 or 2002 OY level; Up to 200 lbs/2 mos yellowtail, widow, vermillion rockfish in any combination; Slope rockfish: 1,800 lbs/2 mos; Cabezon: 16" min. size (OR and WA), state min. size (CA); Halibut and dogfish fishing outside 150 fm only.	Hook and line and pot fishing for nearshore rockfish restricted to same depths as recreational fishery; Closed between 150 fm and deepest depth allowed for recreational fishery; Cap nearshore groundfish limits at 2000 or 2002 OY level; Up to 200 lbs/2 mos yellowtail, widow, vermillion rockfish in any combination; Slope rockfish: 7,500 lbs/2 mos; Cabezon: 16" min. size (OR and WA), state min. size (CA); Halibut and dogfish fishing outside 150 fm only.	Hook and line and pot fishing for nearshore rockfish restricted to same depths as recreational fishery; Closed between 150 fm and deepest depth allowed for recreational fishery; Cap nearshore groundfish limits at 2000 or 2002 OY level; Up to 200 lbs/2 mos yellowtail, widow, vermillion rockfish in any combination; Slope rockfish: 10,000 lbs/2 mos Cabezon: 16" min. size (OR and WA), state min. size (CA); Halibut and dogfish fishing outside 150 fm only.	Hook and line and pot fishing for nearshore rockfish restricted to same depths as recreational fishery; Closed between 150 fm and deepest depth allowed for recreational fishery; Cap nearshore groundfish limits at 2000 or 2002 OY level; Up to 200 lbs/2 mos yellowtail, widow, vermillion rockfish in any combination; Slope rockfish: 12,500 lbs/2 mos; Cabezon: 16" min. size (OR and WA), state min. size (CA); Halibut and dogfish fishing outside 100 fm only.

TABLE 2-3. Proposed management measures for 2003 West Coast commercial groundfish fisheries: options for analysis.				for analysis.
Fishery/Area	Option 1 Most Conservative	Option 2	Option 3	Option 4 Least Conservative
40°10' N. Lat 36° N. Lat. (38° N. Lat. for slope rockfish)	Open shoreward of 10 fm; Season closed Nov-Apr.; Vermillion rockfish: 200 lbs/mo; Nearshore rockfish: 800 lbs/2 mos; Slope rockfish: 1,800 lbs/2 mos; Unless otherwise specified, cumulative limits same as 2002 minus 100 lbs/period; Lingcod: 24" min. size; No stick gear allowed.	Open shoreward of 20 fm; Season closed Mar-Apr and Nov-Dec; Vermillion rockfish: 200 lbs/mo; Nearshore rockfish: 1,000 lbs/2 mos; Slope rockfish: 7,500 lbs/2 mos; Unless otherwise specified, cumulative limits same as 2002 minus 100 lbs/period; Lingcod: 24" min. size; Stick gear to be closely attended, use biodegradable cotton of size 60 or less between the hook and stick.	Open shoreward of 20 fm; Season closed Mar-Apr and possibly Nov-Dec; Vermillion rockfish: 200 lbs/mo; Nearshore rockfish: 1,000 lbs/2 mos; Slope rockfish: 10,000 lbs/2 mos; Unless otherwise specified, cumulative limits same as 2002 minus 100 lbs/period; Lingcod: 24" min. size; Stick gear to be closely attended, use biodegradable cotton of size 60 or less between the hook and stick.	Open shoreward of 20 fm; Year round season; Shelf rockfish: 200 lbs/mo; Nearshore rockfish: 1,200 lbs/2 mos; Slope rockfish: 12,500 lbs/2 mos; Unless otherwise specified, cumulative limits same as 2002; Lingcod: 24" min. size; Stick gear to be closely attended, use biodegradable cotton of size 60 or less between the hook and stick.
South of 36° N. Lat. (38° N. Lat. for slope rockfish)	Closed 20 to 150 fm; Season closed Nov-Apr.; Sablefish DTL: 300 Ibs/day, 900 Ibs/week; Slope rockfish: 5,000 Ibs/2 mos; Thornyheads: 50 Ibs/day south of Pt. Conception. No stick gear allowed.	Closed 20 to 150 fm; Season closed Mar-Apr and Nov-Dec; Sablefish DTL: 300 Ibs/day, 900 Ibs/week; Slope rockfish: 10,000 Ibs/2 mos; Thornyheads: 50 Ibs/day south of Pt. Conception. Stick gear to be closely attended, use biodegradable cotton of size 60 or less between the hook and stick.	Closed 20 to 150 fm; Season closed Mar-Apr and possibly Nov-Dec; Sablefish DTL: 300 Ibs/day, 900 lbs/week; Slope rockfish: 10,000 Ibs/2 mos; Thornyheads: 50 lbs/day south of Pt. Conception. Stick gear to be closely attended, use biodegradable cotton of size 60 or less between the hook and stick.	Closed 20 to 150 fm; Year round season; Sablefish DTL: 350 Ibs/day, 1,050 lbs/week; Slope rockfish: 12,500 Ibs/2 mos; Thornyheads: 50 lbs/day south of Pt. Conception. Stick gear to be closely attended, use biodegradable cotton of size 60 or less between the hook and stick.
		Other Fisheries		
Salmon troll	Increase the distance between the cannonball and the first spread (SAS to review and recommend specification).			
CPS	No change in current regu	lations.		
Pink shrimp	Require finfish excluders; mandatory groundfish retention.			
Exempted trawl north of 40°10' N. Lat.	Require finfish excluders; no groundfish retention allowed.	allowed under half the 2002 limits; no retention of shelf rockfish including canary, cowcod, and retenti yelloweye. 2002 lof she including canary cowcod.		Require finfish excluders; groundfish retention allowed under 2002 limits; no retention of shelf rockfish including canary, cowcod, and yelloweye.
Exempted trawl south of 40°10' N. Lat.	Except for California halibut, require finfish excluders; no groundfish retention allowed.	groundfish retention allowed under half the 2002 limits; no retention of shelf rockfish including bocaccio, canary, cowcod, and yelloweye.		Except for California halibut, require finfish excluders; groundfish retention allowed under 2002 limits; no retention of shelf rockfish including bocaccio, canary, cowcod, and yelloweye.

TABLE 2-4. Proposed management measures for 2003 West Coast tribal groundfish fisheries: options for analysis.				
Fishery	Option 1 Option 2 Option 3 Most Conservative Intermediate Least Conservative			
Black rockfish	Harvest guideline of 20,000 lbs for the management area between Cape Alava and the U.S./Canada border; harvest guideline of 10,000 lbs for the management area between Leadbetter Pt. and Destruction Island; no restrictions between Destruction Island and Cape Alava.			

TABLE 2-4. Proposed management measures for 2003 West Coast tribal groundfish fisheries: options for analysis.			
Fishery	Option 1 Most Conservative	Option 2 Intermediate	Option 3 Least Conservative
Sablefish	Harvest guideline = 10% of the total catch OY adopted for the Monterey through U.S./Vancouver INPFC areas; allocation among tribes and gear types to be determined by tribes.		
Pacific whiting	Harvest guideline based on the Ma	kah Tribe's sliding scale allocation fra	nmework.
Lingcod	300 lbs/day, not to exceed 900 lbs/	week.	
Thornyheads	300 lb trip limit for shortspine and lo	ongspine combined.	
Canary rockfish	300 lb trip limit.		
Other minor nearshore, shelf, and slope rockfish	300 lb trip limit for each species group or the limited entry trip limits if less restrictive.		
Yelloweye rockfish	Consideration for area, depth, season, and bait restrictions to avoid yelloweye.		
Midwater trawl	Yellowtail limit = 30,000 lbs/vessel/2 mos; widow landings < 10% of yellowtail poundage/period; no carry-over of unused portions of cumulative landing limit from previous periods; cumulative limits may be adjusted to minimize incidental catch of canary and widow provided average cumulative limit does not exceed 30,000 lbs yellowtail; trip limits to be adjusted downward if there is greater effort than anticipated.		
Bottom trawl	Same trip limits as in limited entry trawl for Pacific cod, petrale sole, English sole, rex sole, arrowtooth flounder, and other flatfish; limits in place at beginning of season not to be adjusted downward, nor will time restrictions or closures be imposed, unless it is demonstrated in-season the tribes have taken half the harvest in the tribal area; PFMC-approved trawl gear specified.		
Observer program will be developed and implemented to enforce the above limits.			

For purposes of analysis, catches of overfished groundfish species in 2003 research fisheries will be capped at the levels estimated in 2001 which are as follows:

TABLE 2-5. Estimated catch of West Coast rockfish species north of 40°10' north latitude in 2001 research fisheries. Catch estimates used to analyze 2003 groundfish management measures.			
Species	2001 Research Fishery Catch Estimate (mt)		
Bocaccio	0.25 [NOTE: the expected research catch of bocaccio will be higher since the 2003 NMFS shelf survey will be extended south to include the Conception INPFC area].		
Canary rockfish	1.6		
Darkblotched rockfish	1.9		
Widow rockfish	0.3		
Pacific ocean perch	2.3		
Yelloweye rockfish	0.09		
"Other" rockfish	17		